21. The method of claim 18, wherein the driving of the motor comprises:

driving the motor in the reverse direction when the display is in the opposite position.

22. An automatic folder folding method used with a cellular phone providing wireless telecommunication, the method comprising:

inputting a rotation signal to a motor to rotate a folder with respect to a main body;

determining whether the folder is in an open state to rotate the folder according to the rotation signal;

determining whether a display of the folder is in an initial or opposite position when the folder is in the open state;

driving the motor in one of a forward direction and a reverse direction to rotate the folder according to a rotation direction determined by the initial position of the folder;

determining whether a rotation completion detecting sensor is in an on state to detect a rotation of the folder according to completion of the rotation of the folder by the motor; and

cutting off the rotation signal from the motor to terminate the rotation of the folder upon determining that the rotation completion detecting sensor is in the on state.

23. The method of claim 22, wherein the determining of the open state of the folder comprises:

opening the folder when the folder is not in the open state.

24. The method of claim 22, wherein the driving of the motor comprises:

driving the motor in the forward direction when the display is in the initial position.

25. The method of claim 22, wherein the driving of the motor comprises:

driving the motor in the reverse direction when the display is in the opposite position.

26. A cellular phone providing wireless communication, comprising:

a main body having a key pad and a hinge thereof in a folding and unfolding axis;

a folder having a display displaying data received from the main body;

a rotation unit having one end coupled to the folder and the other end coupled to an inside of the hinge in a rotation axis perpendicular to the folding and unfolding axis to allow the folder to be folded and unfolded with respect to the main body, and automatically or manually rotating the folder with respect to the main body according to a user selection when the folder is in an open state.

27. The cellular phone of claim 26, wherein the rotation unit comprises:

a motor fixedly coupled to the folder; and

a rotation shaft controller disposed in the main body to be coupled to a shaft of the motor to control a rotation of the shaft.

28. The cellular phone of claim 27, wherein the rotation shaft controller comprises:

a male cam having one end coupled to the shaft of the motor and having the other end formed with a projection having tapered surfaces;

a female cam having a groove corresponding to the projection of the male cam to limit a movement of the male cam by a coupling state of the groove and the projection; and

an elastic member disposed below the female cam, having an elastic force which is greater than a driving force of the motor and less than an external force exerted on the folder to manually rotate the folder to elastically support the female cam with respect to the male cam and to selectively limit the movement of the male and female cams.

29. A cellular phone providing wireless communication, comprising:

a main body having one of a key pad and a display, and having a hinge thereof along a folding and unfolding axis;

a folder having the other one of the key pad and the display, and coupled to the hinge to be folded and unfolded about the folding and unfolding axis with respect to the main body in a folding and unfolding direction perpendicular to the folding and unfolding axis;

a rotation unit having a first portion fixedly coupled to the folder along the folding and unfolding axis, a second portion fixedly coupled to the main body along the rotation axis, and a third portion coupled to transmit a driving force between the first portion and the second portion to rotate the folder in first and second directions about a rotation axis perpendicular to the folding and unfolding axis with respect to the main body.

30. The cellular phone of claim 29, wherein the rotation unit comprises:

a driving source disposed in the first portion of the folder, and having a shaft extended along the folding and unfolding axis to generate a driving force; and

a power transmission unit disposed in the third portion of the folder, and having one end coupled to the driving source and the other end coupled to the folder to transmit the driving force to folder to rotate with respect to the main body when the folder is in an open state.

31. The cellular phone of claim 30, wherein the main body comprises a housing disposed in the second portion of the rotation unit, and the rotation unit further comprises:

a rotation controller disposed in the housing to be coupled to the power transmission unit and to control the third portion to automatically and/or manually rotate the folder with respect to the main body.

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